

## f California f Morbidity

State of California Pete Wilson, Governor

## Preventing firearm-related injuries and deaths: What can physicians and other health professionals do?

Thousands of Californians are killed with firearms. In 1996, the most recent year for which data are available, more than 4,000 Californians were killed with firearms, making firearms comparable to AIDS as a leading cause of death. More than 5,800 California residents were hospitalized for serious but nonfatal firearm injuries in the same year. Most of these deaths and hospitalizations resulted from assaults, self-inflicted injuries, and unintentional injuries. Despite the decline in violent crime over the past few years, firearms, usually handguns, remained a leading cause of death in 1996:

- Firearms were *the* leading cause of death for black and Hispanic males 15-24 years of age. 1 Most of these youths were murdered.
- 2,161 Californians were murdered with firearms. For every person murdered with a firearm, more than two others were hospitalized for non-fatal firearm assaults.
- 1,724 California residents committed suicide with firearms; 107 of these were under 20 years old. Because people rarely survive suicide attempts with firearms, fewer than 200 people were hospitalized for non-fatal firearm suicide attempts.
- 893 Californians, including 275 under 20 years of age, died or were hospitalized because of unintentional injuries from firearms.<sup>2</sup>

**Firearms in the home are a threat to the residents.** Many firearm injuries, especially those that are self-inflicted or unintentional, occur in homes. Epidemiologic studies show that having firearms in the home and purchasing firearms are associated with elevated risks of homicide, <sup>3,4</sup> suicide, <sup>4,5</sup> and unintentional injury, <sup>6</sup> even when controlling for socioeconomic status and other related characteristics. One of these studies showed that for every time a firearm kept in the home was used in a "self-protection" homicide, there were 43 other homicides, suicides, and unintentional deaths from firearms. <sup>6</sup> A recent study by the California Department of Health Services examined firearm homicides occurring in the shooter's home. Victims of these fatal shootings were over seven times more likely to have been the shooter's intimate partner or family member than a stranger. <sup>7</sup>

Millions of Californians keep firearms in the home. The California Behavioral Risk Factor Surveys (BRFS) show that at least 30% of California adults, including those with children, keep firearms at home. Of people who have handguns, 59% report keeping those handguns for safety and self-protection. These handguns are often stored loaded and not locked, thus they are accessible to children and other unauthorized people. Clearly, many people do not understand that household firearms, especially if improperly stored, increase the risk that someone in the household will be fatally shot. In fact, the BRFS data also suggest that one-half million California women may have firearms in their homes but not know it.

**Simple measures can prevent many firearm injuries.** While no single intervention available today will prevent all firearm injuries, many can be prevented through simple measures that anyone can take, such as ensuring that firearms are secured properly. Under state law, adults who do not adequately secure their firearms can be held responsible if children under age 16 use those firearms. Therefore, people who keep firearms should keep their guns **locked and unloaded**.

**What can health professionals do?** Professional organizations such as the American College of Physicians, the American Academy of Pediatrics, and the American College of Surgeons, support a variety of measures to reduce firearm injuries. <sup>11,12,13,14</sup>You can play an important role in preventing firearm injuries. We suggest you advise your patients of the dangers of keeping firearms at home,

especially if children are ever in the home. Counsel your patients to consider removing household firearms. If they feel they must keep firearms at home, counsel them to store their firearms **locked**, such as in a locked box or with a trigger lock, **and unloaded**, with ammunition locked in a separate container. The California Department of Justice, in its Basic Firearms Safety Certificate Program workbook, and other organizations concerned with firearm safety offer similar advice. The constant of the cons

**Will patients listen?** A survey of parents and guardians accompanying children to urban public pediatric clinics in Washington found that:

- 82% thought information about how to store a gun safely would be helpful.
- 74% of gun owners and 84% of all respondents said they would follow or think over a health care provider's advice not to keep guns in the home.
- Only 3% of all respondents said they would be offended by such advice. 17

As a health professional, you are in a unique position to offer counseling about firearm safety. Because firearms are a leading cause of death for Californians, it is important and appropriate for you to include firearm safety education in the provision of preventive health care.

## References

<sup>1</sup> California Department of Health Services, Center for Health Statistics: Vital Statistics of California, 1996, Table 5-10A.

Reported by: Allegra N. Kim, M.S., Research Scientist, Firearm Injury Surveillance Program, Emergency Preparedness and Injury Control Branch, Division of Chronic Disease and Injury Control, California Department of Health Services.

<sup>&</sup>lt;sup>2</sup> California Department of Health Services, Death records, and California Office of Statewide Health Planning and Development, Hospital Discharge Data

<sup>&</sup>lt;sup>3</sup> Kellermann AL, Rivara FP, Rushforth NB, Banton JG, Reay DT, Francisco JT, Locci AB, Prodzinski J, Hackman BB, Somes G. Gun Ownership as a Risk Factor for Homicide in the Home. N Engl J Med 1993;329:1084-91.

<sup>&</sup>lt;sup>4</sup> Cummings P, Koepsell TD, Grossman DC, Savarino J, Thompson RS. The Association between the Purchase of a Handgun and Homicide or Suicide. Am J Publ Health. 1997;87:974-978.

<sup>&</sup>lt;sup>5</sup> Kellermann AL, Rivara FP, Somes G, Reay DT, Francisco J, Banton JG, Prodzinski J, Hackman BB, Fligner C. Suicide in the Home in Relation to Gun Ownership. N Engl J Med 1992;327:467-72.

<sup>&</sup>lt;sup>6</sup> Kellermann AL, Reay DT. Protection or Peril? An Analysis of Firearm-Related Deaths in the Home. N Engl J Med 1986;314:1557-60

<sup>&</sup>lt;sup>7</sup> California Department of Health Services, Epidemiology and Prevention for Injury Control Branch (1998). Residential Firearm Homicides in California. *EPICgram*, Report No. 3

<sup>&</sup>lt;sup>8</sup> California Department of Health Services, Epidemiology and Prevention for Injury Control Branch (1998). Handgun Storage in California, 1994-1996. *EPICgram*, Report No. 2.

<sup>&</sup>lt;sup>9</sup> California Department of Health Services, Epidemiology and Prevention for Injury Control Branch (1998), Household Firearms in California, 1994-1996. *EPICgram*, Report No. 1.

<sup>&</sup>lt;sup>10</sup> Children's Access Law: AB 491, Statutes of 1997. California Penal Code, Sections 12035, 12036, 12071.

<sup>&</sup>lt;sup>11</sup> American College of Physicians. Position paper: Firearm Injury Prevention, Annals of Internal Medicine, 1 Feb 1998. 128:236-241. Available from: http://www.acponline.org/journals/annals/01feb98/ppguns.

<sup>&</sup>lt;sup>12</sup> American Academy of Family Physicians. Compendium of AAFP Positions on Selected Health Issues: Firearms/Handguns. Available from http://www.aafp.org/policy/49 (modified 2/9/98).

<sup>&</sup>lt;sup>13</sup> American Academy of Pediatrics and Center to Prevent Handgun Violence. Steps to Prevent (STOP) Firearm Injury, 1996.

<sup>&</sup>lt;sup>14</sup> American College of Surgeons, Committee on Trauma. (ST-12) Statement on Gun Control. Available from: http://www.facs.org/fellows/info/statements/st-12.

<sup>&</sup>lt;sup>15</sup> Office of the Attorney General, California Department of Justice. *Basic Firearms Safety Certificate Program*. Sacramento, California: Department of Justice Firearms Program – BFSC Unit, 1994.

<sup>&</sup>lt;sup>16</sup> American Academy of Family Physicians. Patient Information Handout: Your Family and Guns. Available from http://www.aafp.org/afp/090196/pat-977.

<sup>&</sup>lt;sup>17</sup> Haught K, Grossman D, Connell F. Parents' Attitudes Toward Firearm Injury Prevention Counseling in Urban Pediatric Clinics. Pediatrics 1995;96:649-653.